CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
MEDICAL TOXICOLOGY BRANCH

SUMMARY OF TOXICOLOGY DATA

ISOPROPYL ALCOHOL

SB 950-715, Tolerance #50365

October 14, 1986
Revised: May 29, 1987

I. DATA GAP STATUS

Chronic rat: Data not required at this time.

Chronic dog: Data not required at this time.

Onco rat: Data not required at this time.

Onco mouse: Data not required at this time.

Repro rat: Data not required at this time.

Terato rat: Data not required at this time.

Terato rabbit: Data not required at this time.

Gene mutation: Data not required at this time.

Chromosome: Data not required at this time.

DNA damage: Data not required at this time.

Neurotox: Data not required at this time.

----------**Note, Toxicolo**
one-liners are attached

** indicates acceptable study
Bold face indicates possible adverse effect
File name 10C SB715ISO.JP2
Indexed by VDV

II. TOXICOLOGY ONE-LINERS AND DISCUSSION

CHRONIC

RAT

NO STUDY ON FILE (In volume 50365-014 reference is made to a 1944 journal article--J. Lab. Clinic. Med. 29, 561-567--which consists of data from a 27 week study on rats administered to 10% isopropanol in drinking water. A very brief summary of that article indicates body weight gain was depressed, but that no gross or microscopic abnormalities were observed in tissues examined.) A NIOSH Criteria Document (1976) on isopropanol has been issued.

DOG

NO STUDY ON FILE

ONCOGENICITY

RAT

NO STUDY ON FILE

MOUSE

014 47132 (1952, DHEW--NIOSH) Arch. Indus. Hyg. Occup. Med. 5, 535-547 (1952); mouse; inhalation study with isopropanol (purity not stated); nominal concentration 7.5 ug/m^3; ex for 5 days/week, 3-7 hrs/day for 5-8 months; tested on 3 strains (C_3, ABC and C_{57}); insuff information to evaluate potential onco effects; UNACCEPTABLE, NOT UPGRADEABLE.

014 47133 Supplement to record #47132; same data as in record #47132 plus skin painting isopropanol (no purity stated) applied at unknown volume to backs of 30 Rockland mice 3 times/week for one year; no increase incidence of lung tumors noted; UNACCEPTABLE, NOT UPGRADEABLE.

REPRODUCTION

NO STUDY ON FILE (In volume 50365-014 there is a reference to: J. Pharmacology & Experimen Therapeutics 85, 61-69. The study was designed to examine the effects of isopropanol(2.5% growth and reproduction in rats. The brief summary of this study indicates that with the exception of some retardation of growth in the first generation rats, continuous treatment produced no deleterious effects on the reproductive functions or embryonic development of animals.)

TERATOGENICITY

RABBIT

NO STUDY ON FILE

RAT

014 48576 (NIOSH, 1985) The Toxicologist 5, 138 (1985); rat; isopropanol (no purity giv administered at 3500, 7000 and 10,000 ppm by inhalation for 7 hrs/day throughout gestation 15/group; at high dose maternal narcosis and retarded weight gain, increased resorption ra decreased fetal weights plus skeletal and visceral malformations; at intermediate dose mat weight gain retarded, decreased fetal weights and skeletal malformations; cannot evaluate possible adverse effects due to lack of data; UNACCEPTABLE, UPGRADEABLE.

HEN

014 47130 (FDA, 1964) Industrial Hygiene Jour. 25, 282-284 (1969); chicken (not an acce species for SB950 study); several chemicals tested for capacity to decrease hatch followin injection into yolk sac of chicken eggs; isoroopanol (no purity data given) tested at 19.5 and 78 mg/egg; dose-dependent decrease in hatchability reported, no terata reported; UNACCEPTABLE, NOT UPGRADEABLE.

014 47131 (British Industrial Biologicals Res. Assoc., 1964) Fd. Cosmet. Toxicol. 2, 71 (1964); chicken (not an acceptable species for SB950 study); several chemicals assayed for capacity to decrease hatch following injection into yolk sac or immersion of eggs; isopro alcohol injected at 0.05 ml/egg or eggs immersed into full-strength or 50% test article; injection and immersion in full-strength test article decreased hatchability, 50% isopropy alcohol did not influence hatch; UNACCEPTABLE.

014 47129 (FDA, 1963) Toxicol. & Applied Pharmacol. 5, 760-771 (1963); chicken (not an aceptable species for SB950 study); several chemicals tested for capcity to decrease hatch induce terata following injection into the yolk sac of eggs; isopropanol (no purity given) tested at 0.05 ml; hatch reduced to 35%, but no terata noted; UNACCEPTABLE.

MUTAGENICITY

GNMU

014 47126 (Karolinska Institute, Sweden--4/80) Toxicology 18, 219-232 (1980); isopropan purity indicated) tested on Salmonella typhimurium strains TA 98, 100, 1535, and 1537 +/- single dose level of 3 umole/plate; spot test; no increase in mutation frequency reported; UNACCEPTABLE, NOT UPGRADEABLE.

DNA DAMAGE/REPAIR

014 47128 (EPA--Gene Tox Program, 1984) Mutation Research 133, 87-134 (1984); isopropan (purity not stated) tested at unknown levels in meiotic nondisjunction assay with Neurospo crassa; no adverse effects noted; UNACCEPTABLE, NOT UPGRADEABLE.

014 47127 (EPA--Gene Tox Program, 1983) Mutation Reaearch 114, 283-385 (1983); isopropa (purity not stated) tested in SA7/SHE system at 62 to 1000 ug/ml (system involves andenovi SA7 and Syrian hamster embryo cells); no increased frequency of cell transformation report UNACCEPTABLE, NOT UPGRADEABLE.